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A JOURNAL DEVOTED TO STATE INTERESTS

LAMON-SO

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Cause of Specked Beans.

The following, from the Florida Advocate, of Wauchula, explains itself, and needs no comment.

Mr. J. A. Icenhour, the traveling representative of the E. O. Painter Fertilizer Co., Jacksonville, always awake to the interests of the tillers of the soil, has been investigating the subject of specked beans, and received the following letter from the Vegetable Pathological and Physiological Investigation Department or Bureau of Plant Industry, Washington, D. C., which we believe will be of interest to our growers:

"Dear Sir:—Your letter of December 27th, relative to the treatment of beans and cucumbers, has been referred to this office for attention and is answered by Mr. W. A. Orton.

"The disease causing the spotting of the pods of your beans is doubtless the anthracnose, a common and troublesome malady, caused by the fungus Colletotrichum Lindemuthianum. It is widespread throughout the country and, as it occurs in the northern districts where beans are grown for seed, it is very likely carried into Florida to some extent in the seed, as the mycelium of the fungus penetrates the beans and remains dormant within them. This is not the only source, as the fungus is widely distributed in the South and lives over in bean fields, probably on decaying plants. Remedial measures are not easy or entirely satisfactory. It is, of course, important to obtain seed from reliable sources, where freedom from anthracnose can be guaranteed. It is desirable to practice a rotation of crops in which beans shall alternate with other truck crops with as wide an interval between the bean crops as circumstances will permit. A crop of cucumbers is equivalent to a crop of beans in your section, as it is believed that the anthracnose of cucumbers and other curcurbits is caused by the fungus. A third precaution should be taken by destroying all diseased plants and pods and by burning all the plants as soon as the bean crop is harvested.

"Spraying is often recommended for bean anthracnose, but we are unable to state from personal experience how practicable this may ge for Florida. It is advised that, if undertaken, it should be begun when the plants are small, in order to control the damping-off due to the occurrence of the disease on the seedling beans, and should be continued up to the time when the first bean pods are formed, when the applications would have to be discontinued on account of the discoloration produced by the spray mixture. See our Farmers' Bulletin No. 231, referred to later, for directions for spraying.

"It is probable that the most important work to be done in reducing the loss from anthracnose under present conditions is during sorting and shipping. When it is realized that every spotted bean contains thousands of spores, which are able to communicate the disease to other pods and then all specks than develop during shipment result from such infections, it is apparent that a great deal of attention should be paid to the sanitary conditions at the loading station. Diseased pods ought to be destroyed promptly and the remainder sprayed with a solution of potassium sulphide (1 ounce to 2 gallons of water) or sodium sulphide, prepared as follows:

"Place 30 pounds of flowers of sulphur in a wooden tub large enough to hold 25 gallons. Wet the sulphur with 3 gallons of water; stir it to form a paste. Then add 20 pounds of 95 per cent caustic soda (28 pounds should be used if the caustic soda is 70 per cent, and mix it with the sulphur paste. In a few minutes it becomes very hot, turns brown and becomes a liquid. Stir thoroughly and add enough to make 20 gallons. Pour off from the sediment and keep the solution as a stock solution in a tight barrel or keg. Of this solution use four quarts to fifty gallons of water.

"Dry before shipping. It is probable that experiments with cold storage or cooling before shipment would be of value.

"The blighting of cucumbers is fully described in our Farmers' Bulletin 231, sent you under another cover. The remedial measures discussed there have been developed through practical experiments on a large scale in the South, but we would emphasize the necessity for great thoroughness in spraying if any benefit is to accrue."

Mr. Icenhour adds that the cost of the sodium sulphide solution (approximately 30 gals.) would be

20 lbs. Caustic Soda, 98 per cent.	$1.80
30 lbs. Flour Sulphur	.90
Freight	.25
Total	$2.95

or about 10c per gal., not charging for labor. This gal. of stock solution is to be put in 50 gals. of water. The cost is so exceedingly small that a man who would not make the trial should merit no sympathy, if his crop should speck and his profits go to the dimnation bow wows.

Yielded Nine Bushels.

Leon county is crowing over a pecan tree that has yielded eight bushels of nuts. St. Johns can go it one better. Mr. John T. Dismukes has, on a lot on Spanish Street, a pecan tree that yielded nine bushels. Dr. R. B. Garnett also has some of the finest specimens of those trees to be found anywhere, but he has never sized up their yielding capacity. —St Augustine Meteor.

The filthy places in the poultry yard or the pig pen are the breeding places of disease.

When Mulching Vegetables Pays.

The correspondent of the American Agriculturist gives his views on this subject. We believe that on our light sandy land, it would often be a great advantage to mulch the plants.

A great saving of labor as well as a help in keeping the roots of vegetables moist during the hottest weather, is found in mulching the ground heavily instead of cultivating in the usual way. Any material can be used, as hay, straw, dead leaves, litter from the garden, spent tanbark or short shavings. The object is to provide some material which is a good absorbent of moisture and packs well enough so that it will remain in place.

Vegetables which mature early do not require the mulch, but only those which grow throughout the season. Potatoes if mulched with straw when about six inches high, will need no further attention until digging time, but with them as with other things, the mulch should never be applied on low, wet land, as the roots are liable to rot.

The mulch is thought by some growers to retard the ripening of tomatoes, but if applied after the first of the fruit is ripe, it seems to have no bad effect, and through August, which is our hottest and driest time, the mulch is invaluable in keeping the roots moist and in good growing condition. In cases where the vine is allowed to spread over the ground and the fruit comes in contact with the soil, the mulch prevents rotting.

For squash, melon and cucumber vines the mulch is a great labor saver. It must be applied as soon as the vines begin to run. Cucumbers show the good effects, being as clean as if just washed, instead of covered with soil after every rain.

Summer head lettuce is almost impossible in a hot, dry climate. When the mulch is applied, soon after the plants are thinned, rapid growth and fine heads are secured with little trouble. When necessary to apply water, it will soak through the mulch to the roots, with no chance of any remaining on the leaves, causing them to decay, as they do when touching wet ground. Cabbage and cauliflower are also much benefitted by the mulch, but the latter can be urged to extra growth by a different kind of one.

When heads begin to form, take cow manure, fresh if possible, but if not it must be soaked up soft. Spread it around the roots so that it forms a thick covering at least nine inches each way from each plant. I never raised such cauliflower as I grew by this plan, one of the heads being the largest I ever saw.

Pepper and egg plant, both having many fine fibrous roots, are also greatly improved by the mulch, and indeed it is hard to find any vegetable that is not enough better for it to more than pay for the trouble, to say nothing of the labor saved in cultivation.

The practice would doubtless be of little use in a climate where rain falls freely during July and August, but through the middle west and south, when the soil becomes baked, unless cultivated often, the mulch is a great help.

Commenting on the above, the editor of the American Agriculturist says:

(What our contributor says about mulching is undoubtedly true for a dry season, and on light soils. Extensive tests in various parts of the country show that during a wet season mulching is a positive detriment, as it prevents the very necessary drying out of the land after heavy rains. It also tends to develop fungus diseases. —Editor.)

Gold Mines of Florida.

A correspondent of the Clay Worker calls attention to the fact that while gold, in its natural state, cannot be found, in paying quantities, in this state yet there are industries which can be made so profitable that they do prove to be veritable gold mines.

While Florida has no great coal or metalliferous ore deposits, such as copper, lead, zinc, etc., it has vast gold mines, in better shape and more available than in quartz and hard prohyritic rocks, requiring big stamp mills, cyaniding outfits, etc. A few years ago it was fancied that "apples of gold" could be grown on trees here in Florida, and for a period of twenty years or more there was a great boom. However, in one night more than one hundred million dollars were captured by General Jack Frost. The people then turned their attention to agriculture, and more recently to stock-raising. Florida "Crackers" can produce cheaper cheese, beef, butter, pork, mules, sheep, poultry, etc., than other sections of the United States by 50 per cent.

The Armours, Swifts and other great packers have seen this and have bought large tracts of 50,000 to 1000,000 acres to raise their own meats, and it is now seen that a few more "big" freezes will make Florida the leading agricultural and stock-raising state. Gold mine No. 1.

There has never been a geological survey made of this state, but incidentally, during the last ten or fifteen years, the greatest phosphate mines in the world have been developed. Gold mine No. 2.

Again, incidentally, immense kaolin beds have been discovered and several large plants are now in operation, and china wares equal to the best imported are made from Florida kaolin. Gold mine No. 3.

Again, incidentally, immense beds of fuller's earth have been discovered,